

## Ex-Ante Evaluation (for Japanese ODA Loan)

### 1. Name of the Project

Country: The Democratic Socialist Republic of Sri Lanka

Project: Vavuniya-Kilinochchi Transmission Line Project (II)

Loan Agreement: March 22, 2011

Loan Amount: 1,422 million yen

Borrower: The Government of the Democratic Socialist Republic of Sri Lanka

### 2. Background and Necessity of the Project

#### (1) Current State and Issues of Development in the Rehabilitation of the Northern Region of Sri Lanka

Internal conflict between the government of Sri Lanka and the Liberation Tigers of Tamil Eelam (LTTE), which is an antigovernment Tamil organization, escalated from the early 1980s. The northern and eastern parts of the country came under the control of the LTTE and have been isolated from the rest of the country. A ceasefire agreement was reached between both parties in February 2002, and the international community announced its intention to unite efforts to promote the progress of the peace process. Based on this announcement, the Japanese government announced that it would offer financial assistance worth up to 1 billion dollars in total for three years from 2003. The original plan of this project (1,278 million yen) was approved in June 2005 as part of this financial assistance.

Thereafter, although conflict between the LTTE and the government forces resurged in 2007, the battle that had lasted for more than 25 years finally ended in May 2009. Consequently, the entire northern region was brought under full control of the government of Sri Lanka. Compared to the time before the end of the conflict, when only some of the areas of the Northern Province were the targets of projects controlled by the government (approx. 0.66 million people/2004), the targeted area expanded to the entire northern region and the demand population increased sharply (approx. 1.08 million people/2009). Damage to the electric facilities caused by the conflict in the northern region was quite serious. The electricity supply to Vavuniya and regions further north (8,884 square meters) relies on a small diesel power generation system that is unconnected to the national grid, and faces problems including an unstable supply and high power generation cost. In addition, although the national electrification rate has reached 80% (2008), the electrification rate in the northern region remains at around 1% in Kilinochchi and 66% in Vavuniya, showing significant regional differences.

#### (2) Development Policies for the Rehabilitation of the Northern Region in Sri Lanka and the Priority of the Project

The “Wadakkil Wasantham” (‘Northern Spring’, Northern region reconstruction

programme) (July 2009) prioritizes the return and the resettlement of the approximately 300,000 people who became internally displaced persons (IDPs) in the late period of the conflict. Electricity supply is regarded as an indispensable element of the infrastructure necessary for putting these people's lives back in order, and it is stated that efforts should especially be made to reconstruct the transmission and distribution network and the associated substation facilities, and to rehabilitate the overloaded transmission and distribution network. This project is regarded as an important project that will contribute to the rehabilitation of the northern region through the reconstruction of a transmission line and substations.

### (3) Japan and JICA's Policy and Operations in the Rehabilitation of the Northern Region of Sri Lanka

Japan's ODA Policy to Sri Lanka which was tentatively amended in 2009 prioritizes assistance to the area with strong beneficial effects on people affected by the conflict in the northern region in order to promote peace consolidation in the aftermath of the conflict. After the ceasefire agreement in 2002, JICA implemented the "Mannar District Rehabilitation and Reconstruction through Community Approach Project (Technical Assistance Project)" for assisting the restoration and rehabilitation of the northern region based on the policy of the Japanese government. JICA is currently implementing projects such as the "Pro-Poor Economic Advancement and Community Enhancement Project (Loan Assistance)" and the "Project for Development Planning for the Rapid Promotion of Reconstruction and Development in Jaffna District (Technical Assistance Project)."

### (4) Other Donors' Activity

In the northern region, various organizations, including United Nations agencies, the World Bank, and the Asian Development Bank (ADB), are providing rehabilitation assistance. ADB is supporting the reconstruction of the Kilinochchi-Chunnakam transmission line and the Chunnakam substation as a part of its emergency reconstruction assistance project, on the premise of the completion of this project. The project is scheduled to be completed by December 2012.

### (5) Necessity of the Project

Damage to the electric facilities caused by the conflict in the northern region was quite serious, and currently the electricity supply, which is regarded as an essential element of the infrastructure necessary for the rebuilding the lives of IDPs on a large-scale, is still insufficient. This project aims to achieve a stable supply of electricity in the northern region through access to the national grid, by reconstructing transmission lines and substations. It is consistent with Japan's "Country Assistance Program to Sri Lanka (2004)," and JICA's assistance policies as well. Thus, the necessity and relevance of the project to be supported by JICA are high.

The situation differs from that of the time when temporary restoration projects were targeted at limited areas of the northern region during the civil war. The

electricity demand population rose significantly with the liberation of the entire northern region after the conflict, and it has become possible to pursue full-fledged postwar rehabilitation development with an annual economic growth anticipated at 15%. Therefore, it is necessary to increase the project cost compared to that of the “Vavuniya-Kilinochchi Transmission Line Project (SL-P83),” a 2005 loan project, according to the review of project details on coping with the increase in transmission capacity. This project is the cornerstone of assistance towards the rehabilitation of the northern region, and because its progress will have a large impact on the entire electricity supply plan, the government of Sri Lanka made a request to the Japanese government for an additional loan for the Vavuniya-Kilinochchi Transmission Line Project (which was originally approved in 2005).

### **3. Project Description**

#### **(1) Project Objective**

The objective of the project is to realize a stable electricity supply in the northern region of Sri Lanka by reconstructing the transmission line and substations located between Vavuniya and Kilinochchi in the northern region, which were damaged by the civil conflict, and thereby contribute to the reconstruction of the northern region, including the improvement of people’s living environment and the revival of the regional economy.

#### **(2) Project Site/Target Area**

Vavuniya District and Kilinochchi District

#### **(3) Project Components**

- 1) Reconstruction of the transmission line (132kV) between Vavuniya and Kilinochchi, 73km long
- 2) Reconstruction of Kilinochchi Grid Substation (31.5MVA, 132/33kV) and expansion of the outlet of Vavuniya Grid Substation
- 3) Consulting services (supervision of construction works)

#### **(4) Estimated Project Cost (Loan Amount)**

3,829 million yen (Loan amount: 1,422 million yen)

#### **(5) Schedule**

June 2005 to December 2013. The project will be considered completed when the facility starts operation (December 2012).

#### **(6) Project Implementation Structure**

- 1) Borrower: The Government of the Democratic Socialist Republic of Sri Lanka
- 2) Executing Agency: Ministry of Power and Energy
- 3) Operation and Maintenance System: Ceylon Electricity Board

#### **(7) Environmental and Social Consideration/Poverty Reduction/Social Development**

- 1) Environmental and Social Consideration
  - (i) Category: C

(ii) Reason for Categorization: This project is classified as Category C because it does not fall under the sector which has the characteristic of being liable to exert an influence, nor does it apply to a region vulnerable to such influence, according to the “Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations” (established April 2002). Additionally, any adverse environmental stemming from this project is expected to be minimal.

2) Promotion of Poverty Reduction

The targeted region is an area affected by the conflict. The poverty rate of the Northern Province, to which the return of IDPs is under way, is as high as 37% (compared to 15% of the national average). Improvements in the reliability of electricity supply are directly linked with improvements in the living environment of the poor and the revival of the regional economy.

3) Promotion of Social Development (e.g. Gender Perspective, Measure for Infectious Diseases Including HIV/AIDS, Participatory Development, Consideration for the Persons with Disability etc.)

Nothing in particular

(8) Collaboration with Other Donors

The repair work of transmission lines in the section between Vavuniya and Kilinochchi, located further north of the targeted region of this project, is being implemented by the ADB. It is scheduled to be completed by December 2012.

(9) Other Important Issues

Although the removal of land mines has been completed, particularly in the targeted region, sufficient caution must be exercised not only in dealing with land mines but also in handling unexploded bombs during the construction work. The project also provides education on land mines to constructors and personnel engaged in construction work.

**4. Targeted Outcomes**

(1) Quantitative Effects

1) Performance Indicators (Operation and Effect Indicator)

Indicator	Baseline (Actual Value in 2004)	Target (2014) [Expected value 2 years after project completion]
Availability Factor (%)	N/A	99.5
Outage time (hours/year)	N/A	40
Transmission loss rate from Vavuniya to Kilinochchi (%)	N/A	0.82
Peak demand in Kilinochchi (MW)	N/A	40

## 2) Internal Rate of Return

Based on the conditions indicated below, the Economic Internal Rate of Return (EIRR) of this project is 7.8%.

[EIRR]

Costs: Project costs (excluding tax), operation and maintenance costs

Benefit: Saving of costs for alternative power generation

Project Life: 25 years

## (2) Qualitative Effects

Improvement in residents' living environment and the revival of the regional economy through the stable supply of electricity

## 5. External Factors and Risk Control

Climate change (floods, etc.) and the existence of unforeseen land mines and unexploded bombs

## 6. Lessons Learned from Past Projects

Past experiences have shown that, in the case of cofinancing, adequate implementation is realized when the executing agency takes the initiative in making adjustments among donors and supervising the entire project. It should be confirmed that the CEB also supervises the progress of the entire project.

## 7. Plan for Future Evaluation

### (1) Indicators to be Used

- 1) Availability Factor (%)
- 2) Outage time (hours/year)
- 3) Transmission loss rate from Vavuniya to Kilinochchi (%)
- 4) Peak demand in Kilinochchi (MW)
- 5) Economic Internal Rate of Return (EIRR) (%)

### (2) Timing of the Next Evaluation

Two years after project completion